

## CLAIMS

I/We claim:

- [c1]           1.     A method in a consumer system for determining whether an application is misbehaving, the method comprising:
- when installing an application, establishing a limit on services of a service provider that the application is authorized to use; and
- under control a runtime environment,
- providing the application with access to the established limit;
- when the application requests a service of the service provider,
- determining whether the request would exceed the established limit;
- when it is determined that the request would not exceed the established limit, requesting the service provider to provide the service; and
- when it is determined that the request would exceed the established limit,
- notifying the service provider that the application is misbehaving; and
- prohibiting execution of the application on the consumer system.
- [c2]           2.     The method of claim 1 wherein the prohibiting includes uninstalling the application.
- [c3]           3.     The method of claim 1 including before completing installation of the application determining whether the application is authorized to request services of the service provider.

- [c4]           4.     The method of claim 4 wherein the consumer system requests the service provider to indicate whether the application is authorized.
- [c5]           5.     The method of claim 1 wherein the service provider aggregates notifications provided by different consumer systems to determine whether the application should be authorized to request services of the service provider.
- [c6]           6.     The method of claim 1 wherein the service provider aggregates notifications provided by the consumer system to determine whether the consumer system should not be authorized to request services of the service provider.
- [c7]           7.     The method of claim 1 wherein the limit is established by a user of the consumer system.
- [c8]           8.     The method of claim 1 wherein the limit is established based on published requirements of the application.
- [c9]           9.     The method of claim 1 wherein multiple service providers can provide equivalent services and the application can requests services one of those service providers as designated by the consumer system.
- [c10]          10.    A method for apprising a service provider when an application that uses services of a service provider is misbehaving, the method comprising:  
                providing an indication of misbehavior for the application; and  
                under control a runtime environment,  
                    when the application requests a service of the service provider,  
                    requesting the service provider to provide the service; and  
                    when the application behaves in accordance with the indication of misbehavior,

notifying the service provider that the application is  
misbehaving; and  
prohibiting execution of the application.

[c11] 11. The method of claim 10 wherein the indication of misbehavior is exceeding a number of requests for services of the service provider.

[c12] 12. The method of claim 10 wherein the prohibiting includes uninstalling the application.

[c13] 13. The method of claim 10 including before installing the application determining whether the application is authorized to request services of the service provider.

[c14] 14. The method of claim 10 wherein the service provider aggregates notifications provided by different consumer systems to determine whether the application should be authorized to request services of the service provider.

[c15] 15. The method of claim 10 wherein the service provider aggregates notifications provided by a consumer system to determine whether the consumer system should not be authorized to request services of the service provider.

[c16] 16. The method of claim 10 wherein the limit is established by a user of a consumer system.

[c17] 17. A method of a service provider for determining whether an application should not be authorized to request services of the service provider, the method comprising:

when service consumers determine that the application is misbehaving, receiving notifications of the misbehavior from the service consumers;

determining whether a condition of misbehavior is satisfied based on the received notification from different consumers; and

when a service request is received to provide services to the application and it is determined that the condition of misbehavior is satisfied, refusing to provide the requested service.

[c18] 18. The method of claim 17 wherein the condition of misbehavior is when multiple service consumers provide notifications that the application has attempted to exceed an established limit of requests for services from the service provider.

[c19] 19. The method of claim 17 including receiving from another service provider a notification that the application is misbehaving wherein the condition of misbehavior is satisfied based on the notification received from another service provider.

[c20] 20. The method of claim 17 including notifying service consumers that the application is not authorized to request services of the service provider.

[c21] 21. The method of claim 20 wherein a service consumer requests the service provider whether the application is authorized.

[c22] 22. The method of claim 17 wherein the condition of misbehavior is based on an aggregation of the service consumer notifications.

- [c23]            23.    A computer system for providing notification to a service provider that an application is misbehaving, the method comprising:
- a component that installs the application on the service consumer and establishes an indication of misbehavior for the application; and
  - a runtime environment that requests the service provider to provide a service when the application requests a service of the service provider, and that notifies the service provider that the application is misbehaving when the application behaves in accordance with the indication of misbehavior.
- [c24]            24.    The computer system of claim 23 including prohibiting execution of the application when the application behaves in accordance with the indication of misbehavior.
- [c25]            25.    The method of claim 24 wherein the prohibiting includes uninstalling the application.
- [c26]            26.    The computer system of claim 23 wherein the indication of misbehavior is exceeding a number of requests for services of the service provider.
- [c27]            27.    The computer system of claim 23 including a component that, before installing the application, determines whether the application is authorized to request services of the service provider.
- [c28]            28.    The computer system of claim 23 wherein the service provider aggregates notifications provided by different consumer systems to determine whether the application should be authorized to request services of the service provider.

[c29]            29.    The computer system of claim 23 wherein the service provider aggregates notifications provided by a consumer system to determine whether the consumer system should not be authorized to request services of the service provider.

[c30]            30.    The computer system of claim 23 wherein the limit is established by a user of a service consumer.